#### (FILE 'HOME' ENTERED AT 14:34:58 ON 16 NOV 2006)

```
FILE 'REGISTRY' ENTERED AT 14:35:16 ON 16 NOV 2006
      495 SEA HYDROXYSTYRENE
L1
L2
       0 SEA PARA?(S)(HYDROXYSTERENE?)
L3
        0 SEA L1(S)PARA?
       E HYDROXYSTYRENE
L4
      495 SEA HYDROXYSTYRENE/BI
       D TI 1-20
L5
       0 SEA PARA-HYDROXYSTYRENE
```

FILE 'REGISTRY' ENTERED AT 14:39:57 ON 16 NOV 2006 1 SEA 80-62-6/RN SET NOTICE 1 DISPLAY D L6 RN CCN 1-SET NOTICE LOGIN DISPLAY L7 190 SEA 4-HYDROXYSTYRENE D L7 1-10

133 SEA HYDROXYCINNAMIC(S)ACID L8

L9 97 SEA 4(W)L8 D L9 1-10 E HYDROXYCINNAMIC(S)ACID E HYDROXYCINNAMATE E HYDROXYCINNAMIC(W)ACID E HYDROXYCINNAMATE

L10 0 SEA HYDROXYCINNAMATE/BI(W)4 L11 0 SEA HYDROXYCINNAMATE/BI(W)PARA?

### FILE 'CAPLUS' ENTERED AT 14:52:42 ON 16 NOV 2006

2652 SEA HYDROXYCINNAMIC(W)ACID L12

0 SEA L2 AND COUMARIC? L13 L14 **0 SEA L2 AND CAFFEIC** 

359 SEA L12 AND COUMARIC? L15

L16 192 SEA L15 AND CAFFEIC? D TI L16 1-10

1 SEA L16 AND HYDROXYSTYREN? L17

**DL17** D KWIC L17

L18 STRUCTURE UPLOADED S I 18

#### FILE 'REGISTRY' ENTERED AT 15:04:06 ON 16 NOV 2006 L19 50 SEA SSS SAM L18

FILE 'CAPLUS' ENTERED AT 15:04:11 ON 16 NOV 2006 L20 36 SEA L19 D L20 1-36

FILE 'REGISTRY' ENTERED AT 15:04:45 ON 16 NOV 2006

STRUCTURE UPLOADED L21 L22 50 SEA SSS SAM L21 D L22

D L22 1-50

L23 0 SEA HYDROXYCINNAMIC(W)ACID/CN 132 SEA HYDROXYCINNAMIC(W)ACID L24

L25 84 SEA COUMARIC(W)ACID

D L25 1-84 D L25 65

INDEX 'ADISCTI, ADISINSIGHT, ADISNEWS, AGRICOLA, ANABSTR, ANTE, AQUALINE, AQUASCI, BIOENG, BIOSIS, BIOTECHABS, BIOTECHDS, BIOTECHNO, CABA, CAPLUS, CEABA-VTB, CIN, CONFSCI, CROPB, CROPU, DDFB, DDFU, DGENE, DISSABS, DRUGB, DRUGMONOG2, DRUGU, EMBAL, EMBASE, ...' ENTERED AT 15:23:28 ON 16 NOV 2006 SEA DECARBOXYLAS? AND SUBTIL?

9 FILE AGRICOLA

13 FILE BIOENG

96 FILE BIOSIS

34 FILE BIOTECHABS

34 FILE BIOTECHDS

40 FILE BIOTECHNO

12 FILE CABA

```
191 FILE CAPLUS
```

- 8 FILE CEABA-VTB
- 2 FILE CIN
- 4 FILE CONFSCI
- 1 FILE DDFB
- 4 FILE DDFU
- 79 FILE DGENE
- 12 FILE DISSABS
- 1 FILE DRUGB
- 5 FILE DRUGU
- 60 FILE EMBASE
- 41 FILE ESBIOBASE
- 3 FILE FOREGE
- 6 FILE FROSTI
- 14 FILE FSTA
- 553 FILE GENBANK
- 30 FILE IFIPAT
- 4 FILE JICST-EPLUS
- 52 FILE LIFESCI
- 79 FILE MEDLINE
- 35 FILE PASCAL
- 5 FILE PROMT
- 132 FILE SCISEARCH
- 42 FILE TOXCENTER
- 4718 FILE USPATFULL
- 392 FILE USPAT2
- 30 FILE WPIDS
- 30 FILE WPINDEX
- 8 FILE NLDB
- L26 QUE DECARBOXYLAS? AND SUBTIL?

D RANK

FILE 'USPATFULL, GENBANK, USPAT2, CAPLUS, SCISEARCH, BIOSIS, MEDLINE, EMBASE, LIFESCI, TOXCENTER' ENTERED AT 15:25:38 ON 16 NOV 2006

- L27 1088 SEA DECARBOXYLAS?(S) SUBTIL?
- L28 133 SEA L27(S)(HYDROXYSTYREN? OR PHENOL? OR COUMAR? OR CAFFE? OR CINNAM?)
- L29 115 DUP REM L28 (18 DUPLICATES REMOVED)
  - D TI L29 1-115
  - D IBIB ABS L29 8 11 13 23 34 40

Double bond geometry as shown.

### \*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

- 64 REFERENCES IN FILE CA (1907 TO DATE)
- 3 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
- 64 REFERENCES IN FILE CAPLUS (1907 TO DATE)
- 1 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

L25 ANSWER 84 OF 84 REGISTRY COPYRIGHT 2006 ACS on STN

RN 495-78-3 REGISTRY

ED Entered STN: 16 Nov 1984

CN Benzenepropanoic acid, 2-hydroxy- (9CI) (CA INDEX NAME)

OTHER CA INDEX NAMES:

CN Hydrocinnamic acid, o-hydroxy- (8CI)

OTHER NAMES:

CN 2-Hydroxybenzenepropanoic acid

CN 3-(2-Hydroxyphenyl)propanoic acid

CN Hydro-o-coumaric acid

CN Hydrocoumaric acid

CN Melilotic acid

CN o-Hydroxyhydrocinnamic acid

CN o-Hydroxyphenylpropionic acid

CN Salicylacetic acid

MF C9 H10 O3

CI COM

LC STN Files: AGRICOLA, ANABSTR, BEILSTEIN\*, BIOSIS, CA, CAOLD, CAPLUS, CASREACT, CHEMCATS, CSCHEM, IFICDB, IFIPAT, IFIUDB, NAPRALERT, PROMT, SYNTHLINE, TOXCENTER, USPAT2, USPATFULL

(\*File contains numerically searchable property data)

### \*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

220 REFERENCES IN FILE CA (1907 TO DATE)

6 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA

221 REFERENCES IN FILE CAPLUS (1907 TO DATE)

12 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

## => d 125 65

L25 ANSWER 65 OF 84 REGISTRY COPYRIGHT 2006 ACS on STN

RN · 7400-08-0 REGISTRY

ED Entered STN: 16 Nov 1984

CN 2-Propenoic acid, 3-(4-hydroxyphenyl)- (9CI) (CA INDEX NAME)

OTHER CA INDEX NAMES:

CN Cinnamic acid, p-hydroxy- (8CI)

OTHER NAMES:

```
CN β-[4-Hydroxyphenyl]acrylic acid
```

CN 3-(4-Hydroxyphenyl)-2-propenoic acid

CN 3-(4-Hydroxyphenyl)acrylic acid

CN 4'-Hydroxycinnamic acid

CN 4-Coumaric acid

CN 4-Hydroxycinnamic acid

CN NSC 59260

CN NSC 674321

CN p-Coumaric acid

CN p-Cumaric acid

CN p-Hydroxycinnamic acid

CN p-Hydroxyphenylacrylic acid

MF C9 H8 O3

CI COM

LC STN Files: AGRICOLA, ANABSTR, AQUIRE, BEILSTEIN\*, BIOSIS, BIOTECHNO, CA, CABA, CAPLUS, CASREACT, CHEMCATS, CHEMINFORMRX, CHEMLIST, CIN, CSCHEM, DDFU, DETHERM\*, DRUGU, EMBASE, IFICDB, IFIPAT, IFIUDB, IPA, MEDLINE, MRCK\*, MSDS-OHS, NAPRALERT, PIRA, PROMT, RTECS\*, SPECINFO, TOXCENTER, USPAT2, USPATFULL, VETU

(\*File contains numerically searchable property data)

Other Sources: EINECS\*\*\*, NDSL\*\*, TSCA\*\*

(\*\*Enter CHEMLIST File for up-to-date regulatory information)

$$_{
m HO}$$
 CH $=$  CH $-$  CO $_2$ H

#### \*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

5218 REFERENCES IN FILE CA (1907 TO DATE)
239 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
5241 REFERENCES IN FILE CAPLUS (1907 TO DATE)

=> index bioscience medicine FILE 'DRUGMONOG' ACCESS NOT AUTHORIZED COST IN U.S. DOLLARS SINCE FILE TOTAL ENTRY SESSION FULL ESTIMATED COST 300.60 538.33 DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS) SINCE FILE TOTAL ENTRY SESSION CA SUBSCRIBER PRICE 0.00 -0.75

INDEX 'ADISCTI, ADISINSIGHT, ADISNEWS, AGRICOLA, ANABSTR, ANTE, AQUALINE, AQUASCI, BIOENG, BIOSIS, BIOTECHABS, BIOTECHDS, BIOTECHNO, CABA, CAPLUS, CEABA-VTB, CIN, CONFSCI, CROPB, CROPU, DDFB, DDFU, DGENE, DISSABS, DRUGB, DRUGMONOG2, DRUGU, EMBAL, EMBASE, ...' ENTERED AT 15:23:28 ON 16 NOV 2006

### 71 FILES IN THE FILE LIST IN STNINDEX

Enter SET DETAIL ON to see search term postings or to view search error messages that display as 0\* with SET DETAIL OFF.

# => s decarboxylas? and subtil?

- 9 FILE AGRICOLA
- 13 FILE BIOENG
- 96 FILE BIOSIS
- 34 FILE BIOTECHABS

```
34
         FILE BIOTECHDS
      40
         FILE BIOTECHNO
      12 FILE CABA
     191 FILE CAPLUS
      8 FILE CEABA-VTB
       2
         FILE CIN
         FILE CONFSCI
       4
         FILE DDFB
       1
         FILE DDFU
       4
      79 FILE DGENE
      12
         FILE DISSABS
       1 FILE DRUGB
      5 FILE DRUGU
      60 FILE EMBASE
      41
         FILE ESBIOBASE
         FILE FOREGE
      3
         FILE FROSTI
      6
      14
         FILE FSTA
         FILE GENBANK
     553
35 FILES SEARCHED...
      30 FILE IFIPAT
         FILE JICST-EPLUS
      4
      52
         FILE LIFESCI
      79 FILE MEDLINE
      35
         FILE PASCAL
      5 FILE PROMT
     132 FILE SCISEARCH
      42 FILE TOXCENTER
    4718
         FILE USPATFULL
     392
          FILE USPAT2
      30
          FILE WPIDS
          FILE WPINDEX
      30
       8
          FILE NLDB
```

# 36 FILES HAVE ONE OR MORE ANSWERS, 71 FILES SEARCHED IN STNINDEX

### L26 QUE DECARBOXYLAS? AND SUBTIL?

```
=> d rank
F1 4718 USPATFULL
F2
           553 GENBANK
F3
           392 USPAT2
F4
           191 CAPLUS
F5
          132 SCISEARCH
            96 BIOSIS
F6
            79 DGENE
F7
F8
            79 MEDLINE
F9
           60 EMBASE
         60 EMBASE
52 LIFESCI
42 TOXCENTER
41 ESBIOBASE
40 BIOTECHNO
35 PASCAL
34 BIOTECHABS
34 BIOTECHDS
30 IFIPAT
30 WPIDS
30 WPINDEX
14 FSTA
F10
F11
F12
F13
F14
F15
F16
F17
F18
F19
F20
           14 FSTA
F21
           13 BIOENG
F22
           12 CABA
F23
            12 DISSABS
            9 AGRICOLA
F24
F25
             8 CEABA-VTB
             8 NLDB
F26
```

F27 6 FROSTI F28 5 DRUGU F29 5 PROMT F30 4 CONFSCI F31 4 DDFU F32 4 JICST-EPLUS F33 3 FOREGE F34 2 CIN F35 1 DDFB F36 1 DRUGB	
=> file f1-f6,f8-f11 COST IN U.S. DOLLARS FULL ESTIMATED COST	SINCE FILE TOTAL ENTRY SESSION 2.44 540.77
DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS) CA SUBSCRIBER PRICE	
FILE 'USPATFULL' ENTERED AT 15:25:38 ON 16 NOV 2006 CA INDEXING COPYRIGHT (C) 2006 AMERICAN CHEMICAL SOCIETY (ACS)	
FILE 'GENBANK' ENTERED AT 15:25:38 ON 16 NOV 2006	
FILE 'USPAT2' ENTERED AT 15:25:38 ON 16 NOV 2006 CA INDEXING COPYRIGHT (C) 2006 AMERICAN CHEMICAL SOCIETY (ACS)	
FILE 'CAPLUS' ENTERED AT 15:25:38 ON 16 NOV 2006 USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT. PLEASE SEE "HELP USAGETERMS" FOR DETAILS. COPYRIGHT (C) 2006 AMERICAN CHEMICAL SOCIETY (ACS)	
FILE 'SCISEARCH' ENTERED AT 15:25:38 ON 16 NOV 2006 Copyright (c) 2006 The Thomson Corporation	
FILE 'BIOSIS' ENTERED AT 15:25:38 ON 16 NOV 2006 Copyright (c) 2006 The Thomson Corporation	
FILE 'MEDLINE' ENTERED AT 15:25:38 ON 16 NOV 2006	
FILE 'EMBASE' ENTERED AT 15:25:38 ON 16 NOV 2006 Copyright (c) 2006 Elsevier B.V. All rights reserved.	
FILE 'LIFESCI' ENTERED AT 15:25:38 ON 16 NOV 2006 COPYRIGHT (C) 2006 Cambridge Scientific Abstracts (CSA)	
FILE 'TOXCENTER' ENTERED AT 15:25:38 ON 16 NOV 2006 COPYRIGHT (C) 2006 ACS	
=> s decarboxylas?(s)subtil? L27 1088 DECARBOXYLAS?(S) SUBTIL?	
=> s 127(s)(hydroxystyren? or phenol? or coumar? or caffe? or cinnam?) L28	
=> dup rem 128 DUPLICATE IS NOT AVAILABLE IN 'GENBANK'. ANSWERS FROM THESE FILES WILL BE CONSIDERED UNIQUE PROCESSING COMPLETED FOR L28 L29 115 DUP REM L28 (18 DUPLICATES REMOVED)	

- => d ti 129 1-115
- L29 ANSWER 1 OF 115 USPATFULL on STN
- TI Novel Methods and Devices for Evaluating Poisons
- L29 ANSWER 2 OF 115 USPATFULL on STN
- TI Chlamydia trachomatis genomic sequence and polypeptides, fragments thereof and uses thereof, in particular for the diagnosis, prevention and treatment of infection
- L29 ANSWER 3 OF 115 USPATFULL on STN
- TI Identification of novel e2f target genes and use thereof
- L29 ANSWER 4 OF 115 USPATFULL on STN
- TI Nucleic acid and amino acid sequences relating to Staphylococcus epidermidis for diagnostics and therapeutics
- L29 ANSWER 5 OF 115 USPATFULL on STN
- TI Chlamydia trachomatis polynucleotides and vectors, recombinant host cells, DNA chips or kits containing the same
- L29 ANSWER 6 OF 115 USPATFULL on STN
- TI Leinamycin biosynthesis gene cluster and its components and their uses
- L29 ANSWER 7 OF 115 USPATFULL on STN
- TI Methods and compositions for inhibition of membrane fusion-associated events, including HIV transmission
- L29 ANSWER 8 OF 115 CAPLUS COPYRIGHT 2006 ACS on STN DUPLICATE 1
- TI Distribution of genes encoding the microbial non-oxidative reversible hydroxyarylic acid decarboxylases/phenol carboxylases
- L29 ANSWER 9 OF 115 USPATFULL on STN
- TI Fusion proteins comprising DP-178 and other viral fusion inhibitor peptides useful for treating aids
- L29 ANSWER 10 OF 115 USPATFULL on STN DUPLICATE 3
- TI Chlamydia pneumoniae polynucleotides and uses thereof
- L29 ANSWER 11 OF 115 USPATFULL on STN
- TI Method for preparing para-hydroxystyrene by biocatalytic decarboxylation of para-hydroxycinnamic acid in a biphasic reaction medium
- L29 ANSWER 12 OF 115 USPATFULL on STN
- TI Nucleic acids encoding DP-178 and other viral fusion inhibitor peptides useful for treating aids
- L29 ANSWER 13 OF 115 USPATFULL on STN
- TI Microbial conversion of glucose to para-hydroxystyrene
- L29 ANSWER 14 OF 115 USPATFULL on STN
- TI Myxococcus xanthus genome sequences and uses thereof
- L29 ANSWER 15 OF 115 USPATFULL on STN
- TI Methods for inhibition of membrane fusion-associated events, including HIV transmission
- L29 ANSWER 16 OF 115 USPATFULL on STN
- TI Discrete acyltransferases associated with type I polyketide synthases and methods of use
- L29 ANSWER 17 OF 115 USPATFULL on STN
- TI Expressed sequences of arabidopsis thaliana
- L29 ANSWER 18 OF 115 USPATFULL on STN

- TI Nucleic acid sequences and expression system relating to Enterococcus faecium for diagnostics and therapeutics
- L29 ANSWER 19 OF 115 USPATFULL on STN
- TI Nucleic acid and amino acid sequences relating to Acinetobacter baumannii for diagnostics and therapeutics
- L29 ANSWER 20 OF 115 USPATFULL on STN
- TI Chlamydia pneumoniae polynucleotides and uses thereof
- L29 ANSWER 21 OF 115 USPATFULL on STN
- TI Nucleic acid and amino acid sequences relating to pseudomonas aeruginosa for diagnostics and therapeutics
- L29 ANSWER 22 OF 115 USPATFULL on STN
- TI Methods for the inhibition of epstein-barr virus transmission employing anti-viral peptides capable of abrogating viral fusion and transmission
- L29 ANSWER 23 OF 115 CAPLUS COPYRIGHT 2006 ACS on STN
- TI Fermentative production of p-hydroxystyrene by recombinant Escherichia coli expressing phenylalanine ammonia-lyase and 4-hydroxycinnamate decarboxylase
- L29 ANSWER 24 OF 115 CAPLUS COPYRIGHT 2006 ACS on STN DUPLICATE 4
- TI Enhancing Volatile Phenol Concentrations in Wine by Expressing Various Phenolic Acid Decarboxylase Genes in Saccharomyces cerevisiae
- L29 ANSWER 25 OF 115 USPATFULL on STN
- TI Stress-regulated genes of plants, transgenic plants containing same, and methods of use
- L29 ANSWER 26 OF 115 USPATFULL on STN
- TI ENTEROCOCCUS FAECALIS POLYNUCLEOTIDES AND POLYPEPTIDES
- L29 ANSWER 27 OF 115 USPATFULL on STN
- TI Molecular toxicology modeling
- L29 ANSWER 28 OF 115 USPATFULL on STN
- TI Expressed sequences of arabidopsis thaliana
- L29 ANSWER 29 OF 115 USPATFULL on STN
- TI Expressed sequences of arabidopsis thaliana
- L29 ANSWER 30 OF 115 USPATFULL on STN
- TI Expressed sequences of arabidopsis thaliana
- L29 ANSWER 31 OF 115 USPATFULL on STN
- TI Methods for inhibition of membrane fusion-associated events, including respiratory syncytial virus transmission
- L29 ANSWER 32 OF 115 USPATFULL on STN
- TI Polynucleotides and polypeptides derived from corn ear
- L29 ANSWER 33 OF 115 USPATFULL on STN
- TI Human respiratory syncytial virus peptides with antifusogenic and antiviral activities
- L29 ANSWER 34 OF 115 CAPLUS COPYRIGHT 2006 ACS on STN DUPLICATE 5
- TI Expression in Escherichia coli of native and chimeric phenolic acid decarboxylases with modified enzymatic activities and method for screening recombinant E. coli strains expressing these enzymes
- L29 ANSWER 35 OF 115 USPATFULL on STN
- TI Method of protein therapy by orally administering crosslinked protein crystals

- L29 ANSWER 36 OF 115 LIFESCI COPYRIGHT 2006 CSA on STN
- TI Inducible Metabolism of Phenolic Acids in Pediococcus pentosaceus Is Encoded by an Autoregulated Operon Which Involves a New Class of Negative Transcriptional Regulator
- L29 ANSWER 37 OF 115 USPATFULL on STN
- TI Biosensors, extracorporeal devices and methods for detecting substances using crosslinked protein crystals
- L29 ANSWER 38 OF 115 USPATFULL on STN
- TI Methods of enzyme therapy by orally administering crosslinked enzyme crystals
- L29 ANSWER 39 OF 115 USPATFULL on STN
- TI Crosslinked protein crystals
- L29 ANSWER 40 OF 115 CAPLUS COPYRIGHT 2006 ACS on STN DUPLICATE 6
- TI Gene cloning, transcriptional analysis, purification, and characterization of phenolic acid decarboxylase from Bacillus subtilis
- L29 ANSWER 41 OF 115 USPATFULL on STN
- TI Crosslinked enzyme crystals
- L29 ANSWER 42 OF 115 USPATFULL on STN
- TI Preparation of an insoluble biocatalyst
- L29 ANSWER 43 OF 115 USPATFULL on STN
- TI Water-insoluble protein material, its preparation and its use
- L29 ANSWER 44 OF 115 USPATFULL on STN
- TI Preparation of insoluble, only slightly swellable polymers of basic vinyl-heterocyclic compounds
- L29 ANSWER 45 OF 115 USPATFULL on STN
- TI Carrier matrix for the fixation of biochemically effective substances and process for the preparation thereof
- L29 ANSWER 46 OF 115 GENBANK® COPYRIGHT 2006 on STN
  - TITLE (TI): Complete sequence of Syntrophobacter fumaroxidans MPOB
  - TITLE (TI): Direct Submission
- L29 ANSWER 47 OF 115 GENBANK® COPYRIGHT 2006 on STN
  - TITLE (TI): Complete sequence of chromosome 1 of Arthrobacter sp.
    - FB24
  - TITLE (TI): Direct Submission
- L29 ANSWER 48 OF 115 GENBANK® COPYRIGHT 2006 on STN
  - TITLE (TI): The genome of Rhizobium leguminosarum has recognizable
    - core and accessory components
  - TITLE (TI): Direct Submission
- L29 ANSWER 49 OF 115 GENBANK® COPYRIGHT 2006 on STN
  - TITLE (TI): Direct Submission
- L29 ANSWER 50 OF 115 GENBANK® COPYRIGHT 2006 on STN
  - TITLE (TI): Skewed genomic variability in strains of the toxigenic
  - bacterial pathogen, Clostridium perfringens
  - TITLE (TI): Direct Submission

L29 ANSWER 51 OF 115 GENBANK® COPYRIGHT 2006 on STN

TITLE (TI): The complete genome sequence of the European

Francisella tularensis subspecies tularensis isolate. FSC 198 suggests that it is derived from the archetypal laboratory strain Schu S4, originally isolated in North

America

TITLE (TI): Direct Submission

L29 ANSWER 52 OF 115 GENBANK® COPYRIGHT 2006 on STN

TITLE (TI): In-depth view of structure, activity, and evolution of

rice chromosome 10
TITLE (TI): Direct Submission
TITLE (TI): Direct Submission

L29 ANSWER 53 OF 115 GENBANK® COPYRIGHT 2006 on STN

TITLE (TI): Complete sequence of Trichodesmium erythraeum IMS101

TITLE (TI): Direct Submission

L29 ANSWER 54 OF 115 GENBANK® COPYRIGHT 2006 on STN

TITLE (TI): A ubiquitous marine phototroph with a novel

carbon-fixation pathway

TITLE (TI): Direct Submission

L29 ANSWER 55 OF 115 GENBANK® COPYRIGHT 2006 on STN

TITLE (TI): Complete sequence of chromosome of Mycobacterium sp.

MCS

TITLE (TI): Direct Submission

L29 ANSWER 56 OF 115 GENBANK® COPYRIGHT 2006 on STN

TITLE (TI): Complete sequence of Rubrobacter xylanophilus DSM 9941

TITLE (TI): Direct Submission

L29 ANSWER 57 OF 115 GENBANK® COPYRIGHT 2006 on STN

TITLE (TI): Complete sequence of chromosome 2 of Burkholderia

cenocepacia AU 1054

TITLE (TI): Direct Submission

L29 ANSWER 58 OF 115 GENBANK® COPYRIGHT 2006 on STN

TITLE (TI): Complete sequence of Acidobacteria bacterium Ellin345

TITLE (TI): Direct Submission

L29 ANSWER 59 OF 115 GENBANK® COPYRIGHT 2006 on STN

TITLE (TI): Complete sequence of the chromosome of Ralstonia

metallidurans CH34
Direct Submission

L29 ANSWER 60 OF 115 GENBANK® COPYRIGHT 2006 on STN

TITLE (TI): Complete sequence of Rhodopseudomonas palustris BisB18

TITLE (TI): Direct Submission

TITLE (TI):

L29 ANSWER 61 OF 115 GENBANK® COPYRIGHT 2006 on STN

TITLE (TI): Complete sequence of Frankia sp. CcI3

TITLE (TI): Direct Submission

L29 ANSWER 62 OF 115 GENBANK® COPYRIGHT 2006 on STN

TITLE (TI): Direct Submission

L29 ANSWER 63 OF 115 GENBANK® COPYRIGHT 2006 on STN

TITLE (TI): Genome sequencing and analysis of Aspergillus oryzae

TITLE (TI): Direct Submission

L29 ANSWER 64 OF 115 GENBANK® COPYRIGHT 2006 on STN

TITLE (TI): The genome of Salinibacter ruber: Convergence and gene

exchange among hyperhalophilic bacteria and archaea

TITLE (TI): Direct Submission

L29 ANSWER 65 OF 115 GENBANK® COPYRIGHT 2006 on STN

TITLE (TI): Bacterial genome adaptation to niches: Divergence of

the potential virulence genes in three Burkholderia

species of different survival strategies

TITLE (TI): Direct Submission

L29 ANSWER 66 OF 115 GENBANK® COPYRIGHT 2006 on STN

TITLE (TI): Whole-genome analyses of speciation events in

pathogenic brucellae

TITLE (TI): Direct Submission

L29 ANSWER 67 OF 115 GENBANK® COPYRIGHT 2006 on STN

TITLE (TI): Insights into genome plasticity and pathogenicity of

the plant pathogenic bacterium Xanthomonas campestris

pv. vesicatoria revealed by the complete genome

sequence

TITLE (TI): Direct Submission

L29 ANSWER 68 OF 115 GENBANK® COPYRIGHT 2006 on STN

TITLE (TI): Complete sequence of chromosome 2 of Burkholderia sp.

383

TITLE (TI): Direct Submission

L29 ANSWER 69 OF 115 GENBANK® COPYRIGHT 2006 on STN

TITLE (TI): Complete Sequence of Chromosome 1 of Rhodobacter

sphaeroides 2.4.1

TITLE (TI): Direct Submission

L29 ANSWER 70 OF 115 GENBANK® COPYRIGHT 2006 on STN

TITLE (TI): Complete sequence of Chromosomel of Ralstonia eutropha

JMP134

TITLE (TI): Direct Submission

L29 ANSWER 71 OF 115 GENBANK® COPYRIGHT 2006 on STN

TITLE (TI): Whole-Genome Sequencing of Staphylococcus haemolyticus

Uncovers the Extreme Plasticity of Its Genome and the

Evolution of Human-Colonizing Staphylococcal Species

TITLE (TI): Direct Submission

L29 ANSWER 72 OF 115 GENBANK® COPYRIGHT 2006 on STN

TITLE (TI): The Chlamydophila abortus genome sequence reveals an

```
array of variable proteins that contribute to
```

interspecies variation

TITLE (TI): The Chlamydophila abortus genome sequence reveals an

array of variable proteins that contribute to

interspecies variation

TITLE (TI): Direct Submission

L29 ANSWER 73 OF 115 GENBANK® COPYRIGHT 2006 on STN

TITLE (TI): The genome sequence of Salmonella enterica serovar

Choleraesuis, a highly invasive and resistant zoonotic

pathogen

TITLE (TI): Direct Submission

L29 ANSWER 74 OF 115 GENBANK® COPYRIGHT 2006 on STN

TITLE (TI): The Complete Genome Sequence of Neisseria gonorrhoeae

TITLE (TI): Direct Submission

L29 ANSWER 75 OF 115 GENBANK® COPYRIGHT 2006 on STN

TITLE (TI): The map-based sequence of the rice genome

TITLE (TI): The Rice Annotation Project Database (RAP-DB): hub for

Oryza sativa ssp. japonica genome information

TITLE (TI): Oryza sativa nipponbare(GA3) genomic DNA, chromosome 6
TITLE (TI): Curated Genome Annotation of Oryza sativa ssp. japonica

and Comparative Genome Analysis with Arabidopsis

thaliana

TITLE (TI): The First Rice Annotation Project Meeting (RAP1)

TITLE (TI): Direct Submission

L29 ANSWER 76 OF 115 GENBANK® COPYRIGHT 2006 on STN

TITLE (TI): The map-based sequence of the rice genome

TITLE (TI): The Rice Annotation Project Database (RAP-DB): hub for

Oryza sativa ssp. japonica genome information

TITLE (TI): Oryza sativa nipponbare(GA3) genomic DNA, chromosome 4
TITLE (TI): Curated Genome Annotation of Oryza sativa ssp. japonica

and Comparative Genome Analysis with Arabidopsis

thaliana

TITLE (TI): The First Rice Annotation Project Meeting (RAP1)

TITLE (TI): Direct Submission

L29 ANSWER 77 OF 115 GENBANK® COPYRIGHT 2006 on STN

TITLE (TI): The map-based sequence of the rice genome

TITLE (TI): The Rice Annotation Project Database (RAP-DB): hub for

Oryza sativa ssp. japonica genome information

TITLE (TI): Oryza sativa nipponbare(GA3) genomic DNA, chromosome 3
TITLE (TI): Curated Genome Annotation of Oryza sativa ssp. japonica

and Comparative Genome Analysis with Arabidopsis

thaliana

TITLE (TI): The First Rice Annotation Project Meeting (RAP1)

TITLE (TI): Direct Submission

L29 ANSWER 78 OF 115 GENBANK® COPYRIGHT 2006 on STN

TITLE (TI): The map-based sequence of the rice genome

TITLE (TI): The Rice Annotation Project Database (RAP-DB): hub for

Oryza sativa ssp. japonica genome information

TITLE (TI): Oryza sativa nipponbare(GA3) genomic DNA, chromosome 2
TITLE (TI): Curated Genome Annotation of Oryza sativa ssp. japonica

and Comparative Genome Analysis with Arabidopsis

thaliana

TITLE (TI): The First Rice Annotation Project Meeting (RAP1)

TITLE (TI): Direct Submission

L29 ANSWER 79 OF 115 GENBANK® COPYRIGHT 2006 on STN

TITLE (TI): The complete genome sequence of Francisella tularensis,

the causative agent of tularemia

TITLE (TI): Direct Submission

L29 ANSWER 80 OF 115 GENBANK® COPYRIGHT 2006 on STN

TITLE (TI): Genes involved in the anaerobic degradation of

ethylbenzene in a denitrifying bacterium, strain EbN1

TITLE (TI): Genes involved in the anaerobic degradation of toluene

in a denitrifying bacterium, strain EbN1

TITLE (TI): The genome sequence of an anaerobic aromatic-degrading

denitrifying bacterium, strain EbN1

TITLE (TI): Substrate-dependent regulation of anaerobic degradation

pathways for toluene and ethylbenzene in a denitrifying

bacterium, strain EbN1

TITLE (TI): Direct Submission

L29 ANSWER 81 OF 115 GENBANK® COPYRIGHT 2006 on STN

TITLE (TI): Complete genome sequence of Yersinia pestis strain

91001, an isolate avirulent to humans

TITLE (TI): Genetics of metabolic variations between Yersinia

pestis biovars and the proposal of a new biovar,

microtus

TITLE (TI): Direct Submission

L29 ANSWER 82 OF 115 GENBANK® COPYRIGHT 2006 on STN

TITLE (TI): Direct Submission

L29 ANSWER 83 OF 115 GENBANK® COPYRIGHT 2006 on STN

TITLE (TI): A Genomic View of the Human-Bacteroides

thetaiotaomicron Symbiosis

TITLE (TI): Direct Submission

L29 ANSWER 84 OF 115 GENBANK® COPYRIGHT 2006 on STN

TITLE (TI): The genome sequence of Clostridium tetani, the

causative agent of tetanus disease

TITLE (TI): Direct Submission

L29 ANSWER 85 OF 115 GENBANK® COPYRIGHT 2006 on STN

TITLE (TI): Genome Sequence of Yersinia pestis KIM

TITLE (TI): Direct Submission

L29 ANSWER 86 OF 115 GENBANK® COPYRIGHT 2006 on STN

TITLE (TI): The genome sequence of the food-borne pathogen

Campylobacter jejuni reveals hypervariable sequences

TITLE (TI): Re-annotation of Campylobacter jejuni NCTC11168

TITLE (TI): Direct Submission
TITLE (TI): Direct Submission

L29 ANSWER 87 OF 115 GENBANK® COPYRIGHT 2006 on STN

TITLE (TI): Complete genome sequence of Clostridium perfringens, an

anaerobic flesh-eater

TITLE (TI): Direct Submission

GENBANK® COPYRIGHT 2006 on STN L29 ANSWER 88 OF 115

Complete nucleotide sequence of the prophage VT2-Sakai TITLE (TI):

carrying the verotoxin 2 genes of the enterohemorrhagic

Escherichia coli 0157:H7 derived from the Sakai

outbreak

Comparative analysis of the whole set of rRNA operons TITLE (TI):

between an enterohemorrhagic Escherichia coli 0157:H7

Sakai strain and an Escherichia coli K-12 strain MG1655 TITLE (TI): Complete nucleotide sequence of the prophage VT1-Sakai

carrying the Shiga toxin 1 genes of the

enterohemorrhagic Escherichia coli 0157:H7 strain

derived from the Sakai outbreak

TITLE (TI): Complete genome sequence of enterohemorrhagic

Escherichia coli 0157:H7 and genomic comparison with a.

laboratory strain K-12

Direct Submission TITLE (TI):

L29 ANSWER 89 OF 115 GENBANK® COPYRIGHT 2006 on STN

The Complete Genome Sequence of Bacillus licheniformis TITLE (TI):

DSM13, an Organism with Great Industrial Potential

Direct Submission TITLE (TI):

L29 ANSWER 90 OF 115 GENBANK® COPYRIGHT 2006 on STN

TITLE (TI): Genomic plasticity of the causative agent of

melioidosis, Burkholderia pseudomallei

Direct Submission TITLE (TI):

GENBANK® COPYRIGHT 2006 on STN L29 ANSWER 91 OF 115

Genomic plasticity of the causative agent of TITLE (TI):

melioidosis, Burkholderia pseudomallei

Direct Submission TITLE (TI):

GENBANK® COPYRIGHT 2006 on STN L29 ANSWER 92 OF 115

Complete genome sequence of Bacillus cereus E33L TITLE (TI):

TITLE (TI): Direct Submission

GENBANK® COPYRIGHT 2006 on STN L29 ANSWER 93 OF 115

TITLE (TI): Insights into the evolution of Yersinia pestis through

whole-genome comparison with Yersinia

pseudotuberculosis

Direct Submission TITLE (TI):

GENBANK® COPYRIGHT 2006 on STN L29 ANSWER 94 OF 115

Genome evolution in yeasts TITLE (TI):

TITLE (TI): Direct Submission

GENBANK® COPYRIGHT 2006 on STN L29 ANSWER 95 OF 115

The genome sequence of the enterobacterial TITLE (TI):

> phytopathogen Erwinia carotovora subsp. atroseptica SCRI1043 and functional genomic identification of novel

virulence factors

TITLE (TI): Direct Submission

GENBANK® COPYRIGHT 2006 on STN L29 ANSWER 96 OF 115

TITLE (TI): Complete genome sequence of Bacillus thuringiensis

97-27

TITLE (TI): Direct Submission

L29 ANSWER 97 OF 115 GENBANK® COPYRIGHT 2006 on STN

TITLE (TI): Complete genomes of two clinical Staphylococcus aureus

strains: evidence for the rapid evolution of virulence

and drug resistance

TITLE (TI): Direct Submission

L29 ANSWER 98 OF 115 GENBANK® COPYRIGHT 2006 on STN

TITLE (TI): Complete genome sequence of Yersinia pestis strain

91001, an isolate avirulent to humans

TITLE (TI): Direct Submission

L29 ANSWER 99 OF 115 GENBANK® COPYRIGHT 2006 on STN

TITLE (TI): Deciphering the biology of Mycobacterium tuberculosis

from the complete genome sequence

TITLE (TI): Re-annotation of the genome sequence of Mycobacterium

tuberculosis H37Rv

TITLE (TI): Direct Submission

L29 ANSWER 100 OF 115 GENBANK® COPYRIGHT 2006 on STN

TITLE (TI): Deciphering the biology of Mycobacterium tuberculosis

from the complete genome sequence

TITLE (TI): Re-annotation of the genome sequence of Mycobacterium

tuberculosis H37Rv

TITLE (TI): Direct Submission

L29 ANSWER 101 OF 115 GENBANK® COPYRIGHT 2006 on STN

TITLE (TI): Deciphering the biology of Mycobacterium tuberculosis

from the complete genome sequence

TITLE (TI): Re-annotation of the genome sequence of Mycobacterium

tuberculosis H37Rv

TITLE (TI): Direct Submission

L29 ANSWER 102 OF 115 GENBANK® COPYRIGHT 2006 on STN

TITLE (TI): Deciphering the biology of Mycobacterium tuberculosis

from the complete genome sequence

TITLE (TI): Re-annotation of the genome sequence of Mycobacterium

tuberculosis H37Rv

TITLE (TI): Direct Submission

L29 ANSWER 103 OF 115 GENBANK® COPYRIGHT 2006 on STN

TITLE (TI): Deciphering the biology of Mycobacterium tuberculosis

from the complete genome sequence

TITLE (TI): Re-annotation of the genome sequence of Mycobacterium

tuberculosis H37Rv

TITLE (TI): Direct Submission

L29 ANSWER 104 OF 115 GENBANK® COPYRIGHT 2006 on STN

TITLE (TI): Deciphering the biology of Mycobacterium tuberculosis

from the complete genome sequence

TITLE (TI): Re-annotation of the genome sequence of Mycobacterium

tuberculosis H37Rv

TITLE (TI): Direct Submission

L29 ANSWER 105 OF 115 GENBANK® COPYRIGHT 2006 on STN

TITLE (TI): Comparative analysis of the genome sequences of

Bordetella pertussis, Bordetella parapertussis and

Bordetella bronchiseptica

TITLE (TI): Direct Submission

L29 ANSWER 106 OF 115 GENBANK® COPYRIGHT 2006 on STN

TITLE (TI): The complete genome sequence of Mycobacterium bovis

TITLE (TI): Direct Submission

L29 ANSWER 107 OF 115 GENBANK® COPYRIGHT 2006 on STN

TITLE (TI): The complete genome sequence of Mycobacterium bovis

TITLE (TI): Direct Submission

L29 ANSWER 108 OF 115 GENBANK® COPYRIGHT 2006 on STN

TITLE (TI): The complete genome sequence of Mycobacterium bovis

TITLE (TI): Direct Submission

L29 ANSWER 109 OF 115 GENBANK® COPYRIGHT 2006 on STN

TITLE (TI): Complete genome sequence of the model actinomycete

Streptomyces coelicolor A3(2)

TITLE (TI): Direct Submission

L29 ANSWER 110 OF 115 GENBANK® COPYRIGHT 2006 on STN

TITLE (TI): Genome sequence of the plant pathogen and biotechnology

agent Agrobacterium tumefaciens C58

TITLE (TI): Complete Genome Sequence of Agrobacterium tumefaciens

C58 (Rhizobium radiobacter C58), the Causative Agent of

Crown Gall Disease in Plants

TITLE (TI): Direct Submission

L29 ANSWER 111 OF 115 GENBANK® COPYRIGHT 2006 on STN

TITLE (TI): Genome sequence of enterohaemorrhagic Escherichia coli

O157:H7

TITLE (TI): Direct Submission

L29 ANSWER 112 OF 115 GENBANK® COPYRIGHT 2006 on STN

TITLE (TI): Massive gene decay in the leprosy bacillus

TITLE (TI): Direct Submission

L29 ANSWER 113 OF 115 GENBANK® COPYRIGHT 2006 on STN

TITLE (TI): The genome sequence of the thermoacidophilic scavenger

Thermoplasma acidophilum

TITLE (TI): Direct Submission

L29 ANSWER 114 OF 115 GENBANK® COPYRIGHT 2006 on STN

TITLE (TI): Complete DNA sequence of a serogroup A strain of

Neisseria meningitidis Z2491

TITLE (TI): Direct Submission

L29 ANSWER 115 OF 115 GENBANK® COPYRIGHT 2006 on STN

TITLE (TI): Gene cloning, transcriptional analysis, purification,

and characterization of phenolic acid

decarboxylase from Bacillus subtilis

TITLE (TI): Direct Submission

### => d ibib abs 129 8 11 13 23 34 40

L29 ANSWER 8 OF 115 CAPLUS COPYRIGHT 2006 ACS on STN DUPLICATE 1

ACCESSION NUMBER: 2005:694868 CAPLUS

DOCUMENT NUMBER: 143:320032

TITLE: Distribution of genes encoding the microbial

non-oxidative reversible hydroxyarylic acid

decarboxylases/phenol carboxylases

AUTHOR (S): Lupa, Boguslaw; Lyon, Delina; Gibbs, Moreland D.;

Reeves, Rosalind A.; Wiegel, Juergen

CORPORATE SOURCE: Department of Microbiology, The University of Georgia,

Athens, GA, 30602, USA

SOURCE: Genomics (2005), 86(3), 342-351

CODEN: GNMCEP; ISSN: 0888-7543

PUBLISHER: Elsevier DOCUMENT TYPE: Journal LANGUAGE: English

Bacterial non-oxidative, reversible multi subunit hydroxyarylic acid decarboxylases/phenol carboxylases are encoded by the three clustered genes, B, C, and D, of approx. 0.6, 1.4, and 0.2 kb, resp. There are more than 160 homologs in the database with significant similarity to gene B (homol. to ubiX) and C (ubiD) distributed in all three microbial domains, however, homologs to gene D, are not numerous (.apprx.15). The occurrence of the entire BCD gene cluster encoding for either identified or presumptive hydroxyarylic acid decarboxylase to date has been revealed in Sedimentibacter hydroxybenzoicus (unique genes arrangement CDB), Streptomyces sp. D7, Bacillus subtilis, B. licheniformis, E. coli O157:H7, Klebsiella pneumoniae, Enterobacter cloacae, Shigella dysenteriae, Salmonella enterica, S. paratyphi, S. typhimurium, S. bongori, and S. diarizonae. The corresponding genes from S. hydroxybenzoicus, B. subtilis, Streptomyces sp. D7, E. coli O157:H7, K. pneumoniae, and S. typhimurium were cloned and expressed in E. coli DH5 $\alpha$  (void of analogous genes), and shown to code for proteins exhibiting non-oxidative hydroxyarylic acid decarboxylase activity.

REFERENCE COUNT: THERE ARE 52 CITED REFERENCES AVAILABLE FOR THIS 52 RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L29 ANSWER 11 OF 115 USPATFULL on STN

2004:314595 USPATFULL ACCESSION NUMBER:

TITLE: Method for preparing para-hydroxystyrene by

biocatalytic decarboxylation of para-hydroxycinnamic

acid in a biphasic reaction medium

Ben-Bassat, Arie, Newark, DE, UNITED STATES INVENTOR(S):

Haynie, Sharon L., Philadelphis, PA, UNITED STATES

Lowe, David J., Wilmington, DE, UNITED STATES Huang, Lisa L., Hockessin, DE, UNITED STATES

KIND DATE NUMBER \_\_\_\_\_\_ US 2004248267 A1 US 2004-824581 A1 PATENT INFORMATION: 20041209

APPLICATION INFO.: 20040414 (10)

> NUMBER DATE

\_\_\_\_\_

PRIORITY INFORMATION: US 2003-462827P 20030414 (60)

DOCUMENT TYPE: Utility FILE SEGMENT: APPLICATION

LEGAL REPRESENTATIVE: E I DU PONT DE NEMOURS AND COMPANY, LEGAL PATENT

RECORDS CENTER, BARLEY MILL PLAZA 25/1128, 4417

LANCASTER PIKE, WILMINGTON, DE, 19805

NUMBER OF CLAIMS: 40 EXEMPLARY CLAIM: 1 LINE COUNT: 2088

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

Ab iocatalytic method for preparing para-hydroxystyrene from para-hydroxycinnamic acid is described. The method uses an enzyme source having para-hydroxycinnamic acid decarboxylase activity to catalyze the decarboxylation of para-hydroxycinnamic acid in a biphasic reaction medium to produce para-hydroxystyrene, which is extracted into the organic phase of the biphasic reaction medium. The method results in a high yield of para-hydroxystyrene due to the decreased exposure of the enzyme source to the inhibitory product. The product is readily recovered from the extractant, or may be chemically derivatized directly in the extractant before recovery.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L29 ANSWER 13 OF 115 USPATFULL on STN

ACCESSION NUMBER: 2004:24761 USPATFULL

TITLE: Microbial conversion of glucose to para-hydroxystyrene

INVENTOR(S): Ben-Bassat, Arie, Newark, DE, UNITED STATES
Qi, Wei Wei, Broomall, PA, UNITED STATES

Sariaslani, Fateme Sima, Wilmington, DE, UNITED STATES

Tang, Xiao-Song, Hockessin, DE, UNITED STATES Vannelli, Todd M., Ithaca, NY, UNITED STATES

PATENT INFORMATION: US 2004018600 A1 20040129

APPLICATION INFO.: US 2003-439478 A1 20030516 (10)

NUMBER DATE

PRIORITY INFORMATION: US 2002-383450P 20020523 (60)

DOCUMENT TYPE: Utility
FILE SEGMENT: APPLICATION

LEGAL REPRESENTATIVE: E I DU PONT DE NEMOURS AND COMPANY, LEGAL PATENT

RECORDS CENTER, BARLEY MILL PLAZA 25/1128, 4417

LANCASTER PIKE, WILMINGTON, DE, 19805

NUMBER OF CLAIMS: 21 EXEMPLARY CLAIM: 1 LINE COUNT: 2653

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB An in vivo method for the production of pHS via a recombinant host cell is disclosed. The host cell expresses at least one gene encoding a polypeptide having para-hydroxycinnamic acid decarboxylase activity in combination with either at least one gene encoding a polypeptide having tyrosine ammonia lyase activity or at least one gene encoding a

polypeptide having phenylalanine ammonia lyase activity.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L29 ANSWER 23 OF 115 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2003:950804 CAPLUS

DOCUMENT NUMBER: 140:15918

TITLE: Fermentative production of p-hydroxystyrene by

recombinant Escherichia coli expressing phenylalanine ammonia-lyase and 4-hydroxycinnamate decarboxylase Ben-Bassat, Arie; Qi, Wei Wei; Sariaslani, Fateme

Sima; Tang, Xiao-Song; Vannelli, Todd

PATENT ASSIGNEE(S): E. I. Du Pont de Nemours & Co., USA

SOURCE: PCT Int. Appl., 81 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

INVENTOR (S):

PATENT NO. KIND DATE APPLICATION NO. DATE

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WO 2003-US17926
                                                                  20030520
     WO 2003099233
                         A2
                               20031204
     WO 2003099233
                         C1
                               20040708
                         A3
     WO 2003099233
                               20041014
        W: AU, JP
        RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE,
             IT, LU, MC, NL, PT, RO, SE, SI, SK, TR
                                          US 2003-439478
                                                                  20030516
     US 2004018600
                         A1
                               20040129
                               20031212
                                           AU 2003-237451
                                                                  20030520
     AU 2003237451
                         A1
                                          EP 2003-736903
                                                                  20030520
    EP 1506293
                         A2
                               20050216
        R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
             IE, SI, FI, RO, CY, TR, BG, CZ, EE, HU, SK
     JP 2005533489
                         Т2
                               20051110
                                           JP 2004-506760
                                                                  20030520
                                                               P 20020523
PRIORITY APPLN. INFO.:
                                           US 2002-383450P
                                                              W 20030520
                                           WO 2003-US17926
     An in vivo method for the production of pHS via a recombinant host cell is
AΒ
     disclosed. The host cell expresses at least one gene encoding a
     polypeptide having para-hydroxycinnamic acid decarboxylase activity in
     combination with either at least one gene encoding a polypeptide having
     tyrosine ammonia lyase activity or at least one gene encoding a
    polypeptide having phenylalanine ammonia lyase activity. Thus, the pal
     gene encoding phenylalanine ammonia-lyase was isolated from Rhodosporidium
     toruloides ATCC 10788 and the pdc1 gene encoding 4-hydroxycinnamate
     decarboxylase was isolated from Lactobacillus plantarum strain ATCC 14917.
     Both of these genes were cloned into a recombinant phenylalanine
     overproducing Escherichia coli strain NST74. Transformed strains were
     able to produce para-hydroxystyrene during glucose fermentation
L29 ANSWER 34 OF 115 CAPLUS COPYRIGHT 2006 ACS on STN DUPLICATE 5
ACCESSION NUMBER:
                        2001:170005 CAPLUS
DOCUMENT NUMBER:
                        134:349913
                        Expression in Escherichia coli of native and chimeric
TITLE:
                        phenolic acid decarboxylases with modified enzymatic
```

activities and method for screening recombinant E.

coli strains expressing these enzymes Barthelmebs, Lise; Divies, Charles; Cavin,

AUTHOR (S): Jean-Francois

CORPORATE SOURCE:

Laboratoire de Microbiologie UMR-INRA, ENSBANA,

Universite de Bourgogne, Dijon, 21000, Fr.

SOURCE:

Applied and Environmental Microbiology (2001), 67(3),

1063-1069

CODEN: AEMIDF; ISSN: 0099-2240 American Society for Microbiology

DOCUMENT TYPE:

Journal

PUBLISHER: LANGUAGE:

English

Four bacterial phenolic acid decarboxylases (PAD) from Lactobacillus plantarum, Pediococcus pentosaceus, Bacillus subtilis, and Bacillus pumilus were expressed in Escherichia coli, and their activities on p-coumaric, ferulic, and caffeic acids were compared. Although these four enzymes displayed 61% amino acid sequence identity, they exhibit different activities for ferulic and caffeic acid metabolism To elucidate the domain(s) that dets. these differences, chimeric PAD proteins were constructed and expressed in E. coli by exchanging their individual C-terminal portions. Anal. of the chimeric enzyme activities suggests that the C-terminal region may be involved in determining PAD substrate specificity and catalytic capacity. order to test phenolic acid toxicity, the levels of growth of recombinant E. coli displaying and not displaying PAD activity were compared on medium supplemented with different concns. of phenolic acids and with differing pHs. Though these acids already have a slight inhibitory effect on E. coli, vinyl phenol derivs., created during decarboxylation of phenolic acids, were much more inhibitory to the E. coli control strain. To take advantage of this property, a solid medium with the appropriate pH and phenolic acid concentration was developed; in this medium the recombinant E. strains expressing PAD activity form colonies approx. five times smaller than those formed by strains devoid of PAD activity.

REFERENCE COUNT: 37 THERE ARE 37 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L29 ANSWER 40 OF 115 CAPLUS COPYRIGHT 2006 ACS on STN DUPLICATE 6

ACCESSION NUMBER: 1998:234143 CAPLUS

DOCUMENT NUMBER: 129:23916

TITLE: Gene cloning, transcriptional analysis, purification,

and characterization of phenolic acid decarboxylase from Bacillus subtilis

AUTHOR(S): Cavin, Jean-Francois; Dartois, Veronique; Divies,

Charles

CORPORATE SOURCE: Laboratoire de Microbiologie U.A. INRA, ENSBANA,

Universite de Bourgogne, Dijon, 21000, Fr.

SOURCE: Applied and Environmental Microbiology (1998), 64(4),

1466-1471

CODEN: AEMIDF; ISSN: 0099-2240
American Society for Microbiology

DOCUMENT TYPE: Journal LANGUAGE: English

PUBLISHER:

Bacillus subtilis displays a substrate-inducible decarboxylating activity with the following three phenolic acids: ferulic, p-coumaric, and caffeic Based on DNA sequence homologies between the Bacillus pumilus ferulate decarboxylase gene (fdc) (A. Zago, G. Degrassi, and C. V. Bruschi, Appl. Environ. Microbiol. 61:4484-4486, 1995) and the Lactobacillus plantarum p-coumarate decarboxylase gene (pdc) (J.-F. Cavin, L. Barthelmebs, and C. Divies, Appl. Environ. Microbiol. 63:1939-1944, 1997), a DNA probe of about 300 nucleotides for the L. plantarum pdc gene was used to screen a B. subtilis genomic library in order to clone the corresponding gene in this bacterium. One clone was detected with this heterologous probe, and this clone exhibited phenolic acid decarboxylase (PAD) activity. The corresponding 5-kb insertion was partially sequenced and was found to contain a 528-bp open reading frame coding for a 161-amino-acid protein exhibiting 71 and 84% identity with the pdc- and fdc-encoded enzymes, The PAD gene (pad) is transcriptionally regulated by p-coumaric, ferulic, or caffeic acid; these three acids are the three substrates of PAD. The pad gene was overexpressed constitutively in Escherichia coli, and the stable purified enzyme was characterized. The difference in substrate specificity between this PAD and other PADs seems to be related to a few differences in the amino acid sequence. Therefore, this novel enzyme should facilitate identification of regions involved in catalysis and substrate specificity.

REFERENCE COUNT: 18 THERE ARE 18 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

### => d his full

L1

(FILE 'HOME' ENTERED AT 14:34:58 ON 16 NOV 2006)

FILE 'REGISTRY' ENTERED AT 14:35:16 ON 16 NOV 2006

495 SEA HYDROXYSTYRENE

L2 0 SEA PARA?(S)(HYDROXYSTERENE?)

L3 0 SEA L1(S)PARA? E HYDROXYSTYRENE

L4 495 SEA HYDROXYSTYRENE/BI

D TI 1-20

L5 0 SEA PARA-HYDROXYSTYRENE

FILE 'REGISTRY' ENTERED AT 14:39:57 ON 16 NOV 2006

L6 1 SEA 80-62-6/RN

SET NOTICE 1 DISPLAY

D L6 RN CCN 1-

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SET NOTICE LOGIN DISPLAY
            190 SEA 4-HYDROXYSTYRENE
L7
                D L7 1-10
T.8
            133 SEA HYDROXYCINNAMIC(S) ACID
             97 SEA 4(W)L8
1.9
                D L9 1-10
                E HYDROXYCINNAMIC(S)ACID
                E HYDROXYCINNAMATE
                E HYDROXYCINNAMIC(W) ACID
                E HYDROXYCINNAMATE
L10
              0 SEA HYDROXYCINNAMATE/BI(W)4
              0 SEA HYDROXYCINNAMATE/BI(W) PARA?
L11
     FILE 'CAPLUS' ENTERED AT 14:52:42 ON 16 NOV 2006
L12
           2652 SEA HYDROXYCINNAMIC(W) ACID
L13
              0 SEA L2 AND COUMARIC?
L14
              0 SEA L2 AND CAFFEIC
L15
            359 SEA L12 AND COUMARIC?
L16
            192 SEA L15 AND CAFFEIC?
                D TI L16 1-10
L17
              1 SEA L16 AND HYDROXYSTYREN?
                D L17
                D KWIC L17
L18
                STRUCTURE UPLOADED
                S L18
     FILE 'REGISTRY' ENTERED AT 15:04:06 ON 16 NOV 2006
L19
             50 SEA SSS SAM L18
     FILE 'CAPLUS' ENTERED AT 15:04:11 ON 16 NOV 2006
L20
             36 SEA L19
                D L20 1-36
     FILE 'REGISTRY' ENTERED AT 15:04:45 ON 16 NOV 2006
L21
                STRUCTURE UPLOADED
L22
             50 SEA SSS SAM L21
                D L22
                D L22 1-50
L23
              0 SEA HYDROXYCINNAMIC(W)ACID/CN
L24
            132 SEA HYDROXYCINNAMIC(W) ACID
L25
             84 SEA COUMARIC (W) ACID
                D L25 1-84
                D L25 65
```

INDEX 'ADISCTI, ADISINSIGHT, ADISNEWS, AGRICOLA, ANABSTR, ANTE, AQUALINE, AQUASCI, BIOENG, BIOSIS, BIOTECHABS, BIOTECHDS, BIOTECHNO, CABA, CAPLUS, CEABA-VTB, CIN, CONFSCI, CROPB, CROPU, DDFB, DDFU, DGENE, DISSABS, DRUGB, DRUGMONOG2, DRUGU, EMBAL, EMBASE, ...' ENTERED AT 15:23:28 ON 16 NOV 2006 SEA DECARBOXYLAS? AND SUBTIL?

9 FILE AGRICOLA 13 FILE BIOENG 96 FILE BIOSIS 34 FILE BIOTECHABS 34 FILE BIOTECHDS 40 FILE BIOTECHNO 12 FILE CABA 191 FILE CAPLUS FILE CEABA-VTB 8 FILE CIN 2 FILE CONFSCI 4

1 FILE DDFB

4 FILE DDFU

79 FILE DGENE

12 FILE DISSABS

- 1 FILE DRUGB
- 5 FILE DRUGU
- 60 FILE EMBASE
- 41 FILE ESBIOBASE
- 3 FILE FOREGE
- 6 FILE FROSTI
- 14 FILE FSTA
- 553 FILE GENBANK
- 30 FILE IFIPAT
  - 4 FILE JICST-EPLUS
- 52 FILE LIFESCI
- 79 FILE MEDLINE
- 35 FILE PASCAL
- 5 FILE PROMT
- 132 FILE SCISEARCH
- 42 FILE TOXCENTER
- 4718 FILE USPATFULL
- 392 FILE USPAT2
  - 30 FILE WPIDS
  - 30 FILE WPINDEX
    - 8 FILE NLDB

QUE DECARBOXYLAS? AND SUBTIL?

D RANK

FILE 'USPATFULL, GENBANK, USPAT2, CAPLUS, SCISEARCH, BIOSIS, MEDLINE, EMBASE, LIFESCI, TOXCENTER' ENTERED AT 15:25:38 ON 16 NOV 2006

L27 1088 SEA DECARBOXYLAS?(S) SUBTIL?

L28 133 SEA L27(S) (HYDROXYSTYREN? OR PHENOL? OR COUMAR? OR CAFFE? OR CINNAM?)

115 DUP REM L28 (18 DUPLICATES REMOVED)

D TI L29 1-115

D IBIB ABS L29 8 11 13 23 34 40

FILE HOME

#### FILE REGISTRY

Property values tagged with IC are from the ZIC/VINITI data file provided by InfoChem.

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FILE STNINDEX

FILE USPATFULL

FILE COVERS 1971 TO PATENT PUBLICATION DATE: 16 Nov 2006 (20061116/PD)

FILE LAST UPDATED: 16 Nov 2006 (20061116/ED)

HIGHEST GRANTED PATENT NUMBER: US7137145

HIGHEST APPLICATION PUBLICATION NUMBER: US2006260017

CA INDEXING IS CURRENT THROUGH 14 Nov 2006 (20061114/UPCA)

ISSUE CLASS FIELDS (/INCL) CURRENT THROUGH: 16 Nov 2006 (20061116/PD)

REVISED CLASS FIELDS (/NCL) LAST RELOADED: Jun 2006

USPTO MANUAL OF CLASSIFICATIONS THESAURUS ISSUE DATE: Jun 2006

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### FILE USPAT2

FILE COVERS 2001 TO PUBLICATION DATE: 16 Nov 2006 (20061116/PD)
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### FILE SCISEARCH

FILE COVERS 1974 TO 9 Nov 2006 (20061109/ED)

SCISEARCH has been reloaded, see HELP RLOAD for details.

FILE BIOSIS

FILE COVERS 1969 TO DATE.

CAS REGISTRY NUMBERS AND CHEMICAL NAMES (CNs) PRESENT FROM JANUARY 1969 TO DATE.

RECORDS LAST ADDED: 15 November 2006 (20061115/ED)

#### FILE MEDLINE

FILE LAST UPDATED: 15 Nov 2006 (20061115/UP). FILE COVERS 1950 TO DATE.

On December 11, 2005, the 2006 MeSH terms were loaded.